

Docket No.: 56495US002

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Applicant: Robin E. Wright
Serial No.: 09/808,610
Filed: March 14, 2001
Title: METHOD OF DETACKIFYING AN EDGE FACE OF A ROLL OF
TAPE USING A RADIATION CURABLE COMPOSITION

Art Unit: 1771
Examiner: Chang

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

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REPLY BRIEF

Appellant submits the following Reply Brief in response to the Examiner's
Answer dated May 24, 2004.

REMARKS

As a preliminary matter, Appellant wishes to amend the "Grouping of the Claims"
set forth in the Appeal Brief to read as follows:

VII. Grouping of the Claims

Group I: Claims 19, 21 and 23-26

Group II: Claim 20

Group III: Claim 22

Group IV: Claim 27

Group V: Claim 28

Group VI: Claim 29

Group VII: Claim 32

Group IIX: Claim 35

CERTIFICATE OF TRANSMISSION

I hereby certify under 37 CFR §1.8(a) that this correspondence is being facsimile transmitted to the United States Patent and
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The amendment to the Grouping of the Claims is intended to correct an inadvertent clerical error. The Group I that is set forth in the Appeal Brief includes claims 19 and 21-26. However, Group III also includes claim 22. The patentability of claim 22 was established separately in the Appeal Brief and was addressed separately by the Examiner in the Examiner's Answer. Accordingly, amending the Grouping of the Claims as set forth above will not prejudice the Examiner. Appellant therefore respectfully requests entry of the amendment to the Grouping of the Claims.

Response to Examiner's Answer

It is well established that an Examiner's Answer must not contain a new ground of rejection. M.P.E.P. 1208, 37 CFR § 1.193(a)(2). This is due in part to the fact that Appellant must be given a fair opportunity to react to the rejection. See, e.g., *In re Kronig*, 539 F.2d 1302-03 (C.C.P.A. 1976). The evidence now relied on in the Examiner's Answer to support the rejection of claims 22, 27-29, 32 and 35 is not the same evidence that was of record prior to Appellant's Appeal. As stated in the M.P.E.P., even if the prior art reference is cited to support the rejection in a minor capacity, it still should be positively included in the statement of the rejection. *In re Hoch*, 428 F.2d 1341, 1342 n.2 (CCPA 1970). The Examiner's Answer avoids including the newly cited references in the stated rejection in an attempt to cast the new rejections as something they are not, i.e., previously of record. Appellant submits that the Examiner's Answer is in contradiction to the rules governing Appellate procedure. To the extent that the Examiner's Answer contains new rejections, those new rejections should be ignored.

Rejections under 35 U.S.C. § 103

Claims 19-35 stand rejected under 35 U.S.C. § 103 over JP SHO 50-10353 (JP '353) in view of U.S. 4,151,056 issued to Park ("Park"). The failure of the proposed combination of JP '353 and Park to teach or suggest the roll of tape of claims 19-35 is fully set forth in Appellant's Appeal Brief. Appellant further submits the following to rebut the positions set forth in the Examiner's Answer.

Nothing in the Examiner's Answer establishes a suggestion or motivation for selecting both an acrylate oligomer and a polyetheracrylate oligomer for use in detackifying the edge face of a roll of tape. The Examiner's Answer takes the position that,

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[I]t is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose. The idea of combining them flows logically from their having been individually taught in the prior art[.]

and cites M.P.E.P. 2144.06 in support of this position. However, M.P.E.P. 2144.06 has been misapplied. M.P.E.P. 2144.06 is directed to situations in which an applicant seeks to patent a mixture of two components for use in an application, each component of which is known for the same application. *In re Crockett*, which is cited in M.P.E.P. 2144.06, the applicant sought to employ a mixture of two components, magnesium oxide and calcium carbide, for treating cast iron. *In re Crockett*, 279 F.2d 274 (C.C.P.A. 1960). The *Crockett* court found that because magnesium oxide and calcium carbide had each been used individually to treat cast iron, a composition including a combination of the two for treating cast iron was *prima facie* obvious. See, *In re Crockett*, 279 F.2d 274 (C.C.P.A. 1960). Claim 19 requires the reaction product of an acrylate oligomer and a polyetheracrylate oligomer. A reaction product is not a mixture. For this reason alone, the cited section of the M.P.E.P. is not pertinent to the rejection of claim 19 under 35 U.S.C. § 103 over JP '353 in view of Park. Moreover, Park does not teach or suggest using his compositions for detackifying the edge face of a roll of pressure sensitive adhesive tape. Therefore, the individual compositions of Park are not known for the application set forth in claim 19, i.e., detackifying the edge face of a roll of pressure sensitive adhesive tape. Accordingly, under the rubric of M.P.E.P. 2144.06, it would not have been obvious to provide a roll of pressure sensitive adhesive tape in which an edge face thereof is detackified with a composition that includes the reaction product of acrylate oligomer and a polyetheracrylate oligomer. There being no evidence of record establishing a *prima facie* case of obviousness of claims 19-35 over JP '353 in view of Park, the rejection of claims 19-35 under 35 U.S.C. § 103 over JP '353 in view of Park cannot be sustained.

We now turn to the rejections of claims 20, 22, 27-29, 32 and 35, the bases for which were made of record for the first time in the Examiner's Answer. We also note that the Examiner repeatedly notes that Appellant's position with respect to the

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patentability of claims 22, 27-29, 32 and 35 was first made of record in Appellant's Appeal Brief. Appellant tried to raise these issues in the March 18, 2003 teleconference interview with the Examiner; However the Examiner would not allow Appellant's representative to express her position with respect thereto, and limited Appellant's representative to expressing her position with respect to independent claim 19.

Claim 20 stands rejected under 35 U.S.C. § 103 over JP '353 in view of Park.

JP '353 discloses coating the edge face of a roll of tape with a solution that includes an organic solvent and either 1) a crosslinkable photosensitizer or 2) a crosslinkable photosensitizer, a photoactive crosslinking agent and, optionally, a vinyl-based polymer (Translation of JP '353, page 1). JP '353 discloses that only a very thin region at the surface of the pressure-sensitive adhesive on the edge face of the tape is formed into a cured layer by means of crosslinking (*Id.* page 9). JP '353 explains that "the hardened layer is chemically bonded to the pressure-sensitive adhesive polymer; thus removal of the film as a result of impact does not occur" (*Id.* page 7). JP '353 further explains that the method is performed to prevent oozing of adhesive and 'telescoping of the edge face of the tape'" (*Id.* page 2).

Park discloses that radiation curable coating compositions of the prior art typically contain a radiation reactive oligomer or resin, a radiation reactive diluent, a photoinitiator and optionally a radiation reactive crosslinker (Park, col. 1, lines 18-21). Park also discloses a radiation curable coating composition that includes a radiation curable oligomer or resin, an alkanedione or cycloalkanedione, and optionally a photoinitiator and a crosslinker (*Id.* col. 2, lines 30-33).

Claim 20 depends from claim 19 and further recites that the reaction product is of from about 10 % to about 40 % acrylate oligomer and from 50 % to 90 % polyetheracrylate oligomer. The Examiner's Answer acknowledges that neither JP '353 nor Park teaches or suggests the amounts set forth in claim 20. However, the Examiner's Answer takes the position that such amounts are either implicitly disclosed or would be an obvious optimization thereof. Appellant understands the basis of "implicitly disclosed" to be a rejection based on inherency. As has been previously established in Appellant's Appeal Brief, inherent disclosure is not a proper basis for a rejection based in obviousness. Even so, since the Examiner agrees that the composition of claim 19 is not

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disclosed in JP '353 or Park (see Examiner's Answer page 5, lines 14-15), it cannot be disputed that the composition of claim 20 is not disclosed in JP '353 or Park. Therefore, the amounts recited in claim 20 cannot be inherently disclosed. To assert otherwise strains credulity.

As to the second basis asserted by the Examiner, "obvious optimization," again, a composition that includes the reaction product of acrylate oligomer and polyetheracrylate oligomer is nowhere disclosed in Park. Therefore the skilled artisan would have no reason to optimize the relative amounts thereof, let alone to specifically select from about 10 % to about 40 % acrylate oligomer and from about 50 % to about 90 % polyetheracrylate oligomer. In light of the fact that there is no evidence of record of a teaching, suggestion or motivation for modifying Park so as to achieve the roll of tape of claim 20, a *prima facie* case of obviousness of claim 20 has not been established. Accordingly, the rejection of claim 20 under 35 U.S.C. § 103 over JP '353 in view of Park cannot be sustained.

Claim 22 now stands rejected under 35 U.S.C. § 103 over JP '353 in view of Park and further in view of Schunck (U.S. 5,460,857).

Schunck discloses a method of producing dull surfaces that includes applying a first and a second paint layer. The first paint layer includes a dulling agent. The layers are cured by electron beam radiation.

Claim 22 is directed to a roll of pressure sensitive adhesive tape that includes a first nontacky edge face, a second edge face, and a coating disposed on the first edge face, the coating including the reaction product of acrylate oligomer, polyetheracrylate oligomer that includes amine functionality, and, optionally monomer, photoinitiator or a combination thereof. Prior to the Examiner's Answer, the rejection of claim 22 had been based solely on JP '353 in view of Park. The Examiner's Answer does not dispute that neither JP '353 nor Park teaches or suggests a coating composition that includes polyetheracrylate that includes amine functionality. Instead the Examiner's Answer now relies a new reference, Schunck, to provide the missing teaching. Appellant submits that the reliance on Schunck impermissibly constitutes a new ground of rejection. If the Examiner seeks to rely on a new reference, prosecution with respect to claim 22 should be reopened. Moreover, the fact that the Examiner now finds it necessary to rely on

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Schunck to support the rejection, demonstrates that Appellant has established that the rejection of claim 22 under 35 U.S.C. § 103 over JP '353 in view of Park is unwarranted. Accordingly, Appellant submits that it is incumbent upon the Board to find claim 22 patentable over the rejection properly of record, i.e., claim 22 under 35 U.S.C. § 103 over JP '353 in view of Park.

We further note that Schunck does not cure the deficiencies of the proposed combination of JP '353 and Park. In particular, Schunck does not teach or suggest including the reaction product of acrylate oligomer and polyetheracrylate oligomer that includes amine functionality in a coating disposed an edge face of a pressure sensitive adhesive roll of tape. The Examiner takes the position that it would have been obvious to include an amine functionality containing polyetheracrylate in "the radiation curable composition," motivated by the desire to obtain a scratch resistant cured coating, so as to improve the durability of the coating at the edge face of an adhesive tape roll. This position is untenable. We first note that the Examiner's Answer does not provide Appellant with proper notice as to which "radiation curable composition" is being referred to or a clear statement as to the manner in which the references are being combined. Without such a clear statement, Appellant is placed at a disadvantage in trying to properly address this new rejection and is forced to guess at the manner in which the references are being combined.

We further note that Schunck does not teach or suggest that the amine group containing polyetheracrylate of his paint film imparts scratch resistance to the film, as is asserted in the Examiner's Answer. Rather, the amine group containing polyetheracrylate is simply one component in one paint film described in one of the Examples of Schunck. Schunck does not single out his amine group containing polyetheracrylate as having any importance. Therefore, Schunck provides the skilled artisan with no reason to select a polyetheracrylate oligomer that includes amine functionality over any other component in the paint film of Schunck. Moreover, nowhere in Schunck or any of the art of record is there a teaching or suggestion that scratch resistance is an important property for an edge detachfying coating for an adhesive roll of tape. Therefore, the skilled artisan would have no reason to select components so as to achieve scratch resistance. Thus, the basis on which the Examiner relies for the asserted

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motivation for selecting a polyetheracrylate oligomer that includes amine functionality from Schunck does not exist.

Schunck also does not teach or suggest adding his amine group containing polyetheracrylate to a coating for detackifying the edge face of a roll of pressure sensitive adhesive tape --let alone disposing a composition that includes the reaction product of acrylate oligomer and polyetheracrylate oligomer that includes amine functionality on the edge face of a roll of tape. Therefore, the skilled artisan would have no reason to look to Schunck, would have no reason to select an amine group containing polyetheracrylate from Schunck, and further would have no reason to prepare a composition disposed on the edge face of a roll of pressure sensitive adhesive tape that includes the reaction product of acrylate oligomer and polyetheracrylate oligomer that includes amine functionality. Accordingly, the rejection of claim 22 under 35 U.S.C. § 103 over JP '353 in view of Park and further in view of Schunck is unwarranted and cannot be sustained.

Claims 27 and 28 now stand rejected under 35 U.S.C. § 103 over JP '353 in view of Park and further in view of Fuhr et al. (U.S. 4,528,307).

Fuhr et al. is directed to primer compositions and top coat composition for coating articles that have absorbent surfaces such as wood-concrete articles.

Claim 27 depends from claim 19 and states that composition further includes a matting agent. Prior to the Examiner's Answer, the rejection of claim 27 had been based solely on JP '353 in view of Park. The Examiner's Answer does not dispute that neither JP '353 nor Park teaches or suggests a coating composition that includes a matting agent. Instead the Examiner now resorts to Fuhr et al. to supply the missing teaching or suggestion. As far as Appellant can determine, Fuhr et al. has not previously been made of record in the above-referenced application. Appellant submits that the reliance on Fuhr et al. impermissibly constitutes a new ground of rejection. If the Examiner seeks to rely on a new reference, prosecution with respect to claim 27 should be reopened. Moreover, the fact that the Examiner now finds it necessary to rely on Fuhr et al. to support the rejection, demonstrates that Appellant has established that the rejection of claim 27 under 35 U.S.C. § 103 over JP '353 in view of Park is unwarranted. Accordingly, Appellant submits that it is incumbent upon the Board to find claim 27

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patentable over the rejection properly of record, i.e., claim 27 under 35 U.S.C. § 103 over JP '353 in view of Park.

We further note that Fuhr et al. do not cure the deficiencies of JP '353 and Park. The Examiner takes the position that because Fuhr et al. disclose that matting agents, such as dispersed silica, are known auxiliary agents to a radiation curable composition, it would have been obvious to include a silica matting agent in a coating composition, motivated by the desire to control the surface glossiness for aesthetic effect. As a preliminary matter, Fuhr et al. do not teach that matting agents such as silica are auxiliary agents. To the contrary, a careful reading of the cited passage from Fuhr et al. demonstrates that Fuhr et al. view matting agents as components in a class by themselves, separate and distinct from "auxiliary agents" (see, Fuhr et al., column 4, lines 16-36). Moreover, nowhere in Fuhr et al. or any of the art of record is there a teaching or suggestion that it is desirable to control the surface glossiness of a coating on an edge face of a roll of pressure sensitive adhesive tape, which is the asserted basis on which the Examiner relies for the motivation for selecting a silica matting agent from Fuhr et al.. Because the alleged motivation does not exist, the rejection of claim 27 under 35 U.S.C. § 103 over JP '353 in view of Park and further in view of Fuhr et al. cannot stand.

Fuhr et al. is further deficient for at least the following additional reasons. Fuhr et al. disclose a laundry list of components that can be included in their coating composition including, e.g., auxiliary agents (e.g. polymerization inhibitors, antioxidants, and antisetling agents), matting agents, leveling agents, UV absorbents, dyes, pigments, quenchers and radical acceptors (see, Fuhr et al., e.g., at column 4, lines 16-36). Nothing in Fuhr et al. or any of the references of record directs the skilled artisan to select a silica matting agent from among the many components disclosed by Fuhr et al., and to include such a component in a composition for detackifying the edge face of a roll of pressure sensitive adhesive tape. Therefore the skilled artisan would have no reason to do so. Thus, the rejection of claim 27 under 35 U.S.C. § 103 over JP '353 in view of Park and further in view of Fuhr et al. is unwarranted and cannot be sustained.

Claim 28 is distinguishable over the proposed combination of JP '353 in view of Park and further in view of Fuhr et al. for at least the same reasons set forth above in distinguishing claim 27.

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Claim 29 now stands rejected under 35 U.S.C. § 103 over JP '353 in view of Park and further in view of Schaefer et al. (U.S. 4,801,658) a.k.a. Furukawa et al.

Schaefer et al./Furukawa et al. disclose moisture curable resins that include a hydrolyzable silyl group.

Claim 29 depends from claim 19 and recites that the composition further includes silicone acrylate. Prior to the Examiner's Answer, the rejection of claim 29 had been based solely on JP '353 in view of Park. The Examiner's Answer does not dispute that neither JP '353 nor Park teaches or suggests a coating composition that includes silicone acrylate. Instead the Examiner now relies on Schaefer et al. to supply the missing teaching or suggestion. The Examiner's reliance on Schaefer et al. impermissibly constitutes a new ground of rejection. Appellant notes that he cannot find a reference to Schaefer et al. anywhere in the prosecution history of the above-referenced application. In addition, the patent number cited by the Examiner in reference to Schaefer et al., i.e., U.S. 4,801,658, bears the name "Furukawa et al." Appellant assumes, therefore, that the Examiner intended to refer to Furukawa et al. and bases his position on this assumption. If the Examiner seeks to rely on a new reference, prosecution with respect to claim 29 should be reopened. Moreover, in light of the fact that the Examiner now finds it necessary to rely on Furukawa et al., it is clear that Appellant has established that the rejection of claim 29 under 35 U.S.C. § 103 over Park in view of JP '353 is unwarranted. Accordingly, Appellant submits that it is incumbent upon the Board to find claim 29 patentable over the rejection properly of record, i.e., claim 22 under 35 U.S.C. § 103 over JP '353 in view of Park.

Even so, Furukawa et al. do not cure the deficiencies of JP '353 and Park. Furukawa et al. disclose moisture curable resins that include a hydrolyzable silyl group. The Examiner takes the position that because Furukawa et al. disclose silicone polyether acrylate, it would have been obvious to include silicone polyether acrylate in a radiation curable coating composition, motivated by the desire to obtain an improved adhesiveness to the edge-face of the adhesive tape rolls.

To establish a *prima facie* case of obviousness, the record must, *inter alia*, demonstrate "some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the

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relevant teachings of the references.” *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Here there is no such teaching, suggestion or motivation. The deficiencies of JP ‘353 and Park have been set forth in Appellant’s Appeal Brief.

Furukawa et al. do not cure the deficiencies of JP ‘353 and Park. Nothing in Furukawa et al. teaches or suggests including a silicone polyether acrylate in a coating disposed on the edge face of a roll of pressure sensitive adhesive tape. Moreover, nothing in Furukawa et al. teaches or suggests adding a silicone polyether acrylate to a composition that includes the reaction product of acrylate oligomer and polyether acrylate oligomer. Therefore the skilled artisan would have no reason to select a silicone acrylate for inclusion in a composition for detackifying the edge face of a roll of pressure sensitive adhesive tape. The rejection of claim 29 under 35 U.S.C. § 103 over JP ‘353 in view of Park and further in view of Furukawa et al. being unwarranted, Appellant submits that it cannot be sustained.

Claim 32 stands rejected under 35 U.S.C. § 103 over JP ‘353 in view of Park.

Claim 32 depends from claim 19 and states that when a layer of the roll of tape is unwound from the roll, the coating remains adhered to the layer. It is undisputed that neither JP ‘353 nor Park or any combination thereof, teaches or suggests that a composition that includes the reaction product of acrylate oligomer and polyetheracrylate oligomer will remain adhered to a layer of the roll of tape when the layer is unwound from the roll. The Examiner’s position, when distilled down to its legal basis, is one of inherency. Specifically, the Examiner takes the position that the composition that results from his proposed combination of JP ‘353 and Park would inherently exhibit the property of remaining adhered to a layer of the roll of tape when the layer is unwound from the roll. This is an inappropriate use of the legal doctrine of inherency. Inherency is not applicable to an obviousness rejection. It is well established that “that which may be inherent is not necessarily known. Obviousness cannot be predicated on what is unknown.” *In re Spormann*, 53 C.C.P.A. 1375, 363 F.2d 444, 448, 150 USPQ 449, 452 (C.C.P.A. 1966). Moreover, “Inherent anticipation requires that the missing descriptive material is ‘necessarily present,’ not merely probably or possibly present, in the prior art.” *Trintec Industries, Inc. v. TOP U.S.A. Corp.*, 295 F.3d 1292, 1295 (Fed. Cir. 2002),, citing *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999).

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The Examiner has theorized a composition; thus the composition never actually existed. Rather, it is something that the Examiner created as a result of modifying a composition based on his own belief and then applying that composition to the edge face of a roll of pressure sensitive adhesive tape. Since neither the composition nor the resulting roll of tape ever existed, it is axiomatic that neither the composition nor the roll of tape can have any inherent properties and no inherent properties can properly be attributed to them. The Examiner has thus failed to establish a *prima facie* case of obviousness of the roll of tape of claim 32. Accordingly, the rejection of claim 32 under 35 U.S.C. § 103 over JP '353 in view of Park cannot be sustained.

Claim 35 stands rejected under 35 U.S.C. § 103 over JP '353 in view of Park.

Claim 35 is directed to a roll of pressure sensitive adhesive tape that includes a first nontacky edge face, a second edge face opposite the first edge face, and a discontinuous coating disposed on the first edge face, the coating including the reaction product of acrylate oligomer, polyetheracrylate oligomer, and optionally monomer, photoinitiator or a combination thereof. The Examiner does not dispute that neither JP '353 nor Park teaches or suggests a discontinuous coating disposed on the first edge face of a roll of pressure sensitive adhesive tape that includes a first nontacky edge face. Instead the Examiner relies upon his belief that it would have been obvious to apply a discontinuous coating only to suitable area on the edge surface motivate by the desire to reduce the cost by preventing adhesive oozing only at required areas. Neither JP '353 nor Park teach or suggest that a nontacky edge face can be achieved with a discontinuous coating. Therefore, the skilled artisan would have no reason to apply a discontinuous coating to the edge face of a roll of tape or to prepare a roll of tape that includes a discontinuous coating on the edge face thereof. Furthermore, the skilled artisan would have no reasonable expectation that a nontacky edge face could be achieved with a discontinuous coating. Appellant submits, therefore, that the rejection of claim 35 under 35 U.S.C. § 103 over JP '353 in view of Park is unwarranted and must be overruled.


The claims now pending in the application are in condition for allowance and such action is respectfully requested. Appellant requests that the Board overrule the rejections of Record and direct the Examiner to pass the application to issue.

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Respectfully submitted,

Date: July 26, 2004


Allison Johnson
Reg. No. 36,173

Allison Johnson, P.A.
2925 Dean Parkway, Suite 300
Minneapolis, MN 55419
Telephone (612) 925-8371
Facsimile(612) 925-8372